On Power Sums of Positive Numbers

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In this talk we present a necessary and sufficient condition for a genus 0 entire function $f(z)$ that has only positive zeros by applying Hausdorff moment problem and Mergelyan's theorem. The obtained criterion is very much reminiscent of Xian-Jin Li's criterion on the Riemann hypothesis. We also apply this criterion to the Riemann hypothesis and the generalized Riemann hypothesis for certain Dirichlet L-series of real primitive characters.